

MATERIA MEDICA. GENERAL THERAPEUTICS, AND PHARMACY.

6. *Mode of Action of some Emetics.*—M. CHOUPE has lately made some interesting observations in M. Vulpian's laboratory on the action of certain emetic substances—namely, tartar-emetic, apomorphine, and ipecacuanha, with its active principle, emetine. Two opinions have been expressed in regard to the mode of action of these substances when introduced into the general circulation, some conceiving that they only act at the moment of their elimination on the peripheral extremities of the nerves, whilst others believe that they act whenever they accumulate in sufficient quantity in the blood circulating in the medulla oblongata to start the co-ordinated movements which produce vomiting. M. Choupe's experiments lead him to think that both views are sometimes true, sometimes erroneous. He divided the pneumogastric nerves in dogs, and after permitting the efforts to vomit resulting from the operation to subside, he injected subcutaneously, or into the veins, an emetic dose of one or other of the above substances. He found that the previous section of the pneumogastriacs had no effect in the case either of the tartar-emetic or of the apomorphine, vomiting occurring just as freely as when the nerves were intact, whilst, on the contrary, with ipecacuanha or emetine no vomiting occurred in any instance. So, too, if, after emetine had been injected, and some time had been allowed to elapse, a little tartar-emetic were injected, vomiting at once took place. A point incidentally observed in these experiments is worthy of note—namely, emetine causes vomiting much more quickly when it is introduced into the stomach than when it is injected into the veins, whilst exactly the opposite occurs with apomorphine and tartar emetic. The conclusion to be drawn from M. Choupe's experiments seems to be that tartar emetic and apomorphine act both on the central nervous system and upon the gastric mucous membrane, whilst the action of emetine seems to be limited to the peripheric extremities of the vagus.—*Lancet*, October 10, 1874.

7. *Podophyllin.*—M. DEMARQUAY having of late made frequent use of this substance at the Maison Municipale de Santé, where a large proportion of the patients are women, M. Marchant, his élève, published in the *Bulletin de Thérap.* for August 30 an account of the results that have been obtained of forty patients to whom it has been administered. Three only resisted its effects, and in these the constipation was rendered obstinate by mechanical obstacles. As a general rule its effects take place about twelve hours after its administration, the most extreme periods on either hand that were observed having been seven and nineteen hours. The medicine acted with little or no pain, either prior or subsequent to the stools; but it was often found that the patient had an inclination for stool without any result. This was especially the case in the subjects of obstinate constipation, and was obviated by increasing the dose, or, better still, by more frequent repetition of the remedy. The stools produced are remarkable for their non-diarrhœic character, being semi-liquid only, and often normal in colour and consistence; and podophyllin may be long employed without producing any secretory disturbance in the canal, and without inducing super-purgation to be followed again by constipation. The medicine may, however, act in this mischievous way if given in too large doses (five to ten centigrammes) and without bearing due relation to the age of the patient and the degree of constipation. In the stools there is also found a considerable portion of bile when the dose is properly apportioned. The various accidents said by some authors to attend the use of podophyllin (as vertigo, sweating, loss of appetite, vomiting, dysentery, etc.) have not been met with among M. Demarquay's patients, even when the medicine has been continued for a long period. This may be attributed to the small doses given, which have never exceeded six centigrammes. The formula which, after various trials, has been found most convenient, consists in a pill made of three centigrammes of pod-

phyllin, two of extract of hyoscyamus, and two of soap. This pill also constitutes the best average dose for an adult. It will sometimes, however, be insufficient in the subjects of habitual constipation, while for children one or two centigrammes suffice. When the three centigrammes do not prove sufficient, the dose may be gradually increased, or what is preferable, the pills may be given oftener, so that one is administered every twelve instead of every twenty-four hours. And when these do not suffice, it will be preferable, in place of increasing the quantity of each dose, to repeat the pill every eight or six hours. At the end of the third day, at latest, the effect will have been produced, it being also explained to the patient that the medicine is not intended to act as a purgative, but as a remedy against constipation, in order to secure the necessary patience. Stools once secured, the medicine must always be administered at the same time of the day, and the patient acquire the habit of going to stool. Ten or fifteen days may be required for this purpose, and then the doses must be gradually given at more prolonged periods; so that, perhaps, a month altogether may be required to overcome the constipation.—*Med. Times and Gaz.*, Sept. 19, 1874.

8. *Intravenous Injection of Chloral*.—Notwithstanding the strong disapprobation expressed at the French Academy of Medicine and Society of Surgery, of this means of inducing anæsthesia (see No. of this Journal for July last, p. 260), it has been employed (*Med. Times and Gaz.*, Oct. 17th) by Professors DENEFFE and VAN WETTER, of the Ghent University, in eleven cases, and always with success. The duration of the procedure has varied from six to thirteen minutes, in two of the cases only having exceeded ten minutes. The quantity of chloral injected has varied from one and a half grammes to twelve grammes (water three parts, chloral one part), the state of absolute anæsthesia having lasted from twelve to thirty-two minutes. In one case it lasted three hours, but in that twelve grammes had been injected. In another case, when nine grammes were injected, it lasted an hour. After the completion of the operations the patients slept for hours, or even for a whole day, with only interruptions from time to time, lasting for some minutes. In none of these cases did any ill effect arise, while the patients were free from vomiting, even although they might have recently eaten; and insensibility is produced without the occurrence of the stage of excitement which always precedes this in the ordinary mode of employing anæsthetics. These advantages, conjoined to the rapidity and certainty of the action of the chloral when injected into the veins in doses which can be exactly determined, lead MM. Oré, Deneffe, and Van Wetter to regard this method as very superior to the induction of anæsthesia by inhalation.

Full particulars are given of Profs. Deneffe and Van Wetter's last case in the *Presse Médicale Belge* for October 4. In this the anæsthesia was induced for the removal of cancerous disease of the rectum, the patient being in a very dilapidated condition. Profound anæsthesia continued during two hours (seven grammes and a half of chloral having been employed); and two days elapsed before the patient had entirely passed out of the state of subsequent somnolence. No accident whatever occurred.

9. *Local Application of Tannin*.—Mr. P. MIALL, Surgeon to the Bradford Infirmary, states (*British Med. Journ.*, Nov. 7, 1874) that he has used tannin for some years as a topical application in various diseases, rather as an astringent than a styptic. To prepare it of full strength, an ounce of perfectly fresh tannin must be mixed with six drachms of water, in which it readily dissolves. The solution is a thick fluid, of the colour and consistence of treacle, which keeps much better than tannin itself. I am in the habit of prescribing it as Martin's solution, having learnt it from a paper by Mr. Martin in the *British Medical Journal* of March 20th, 1869. Mr. Martin recommended it as a method of converting living skin into leather.

Most of the tannic acid found in shops contains a large proportion of gallic acid, and will not yield a very strong solution. But, if an ounce of old tannic acid be mixed with two ounces of water, a tolerably strong solution, which answers for many purposes, may be decanted off after subsidence.